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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/056,596	01/24/2002	David Collier	GE - 120432	4700
7590	08/24/2006		EXAMINER	
John S. Beulick Armstrong Teasdale LLP One Metropolitan Sq., Suite 2600 St. Louis, MO 63102			GOLD, AVI M	
			ART UNIT	PAPER NUMBER
			2157	

DATE MAILED: 08/24/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

**Office Action Summary**

Application No.

10/056,596

Applicant(s)

COLLIER ET AL.

Examiner

Avi Gold

Art Unit

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☒ Responsive to communication(s) filed on 07 August 2006.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☒ Claim(s) 1-44 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-44 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

**Priority under 35 U.S.C. § 119**

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some \* c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
  2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

**Attachment(s)**

- |  |   |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892)  | 4) <input type="checkbox"/> Interview Summary (PTO-413)<br>Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)                                   | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152)             |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)<br>Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____  |

## DETAILED ACTION

This action is responsive to the amendment filed on August 7, 2006. Claims 1, 12, 13, 28, 31, and 36 were amended. Claims 1-44 are pending.

### *Response to Amendment*

#### *Claim Rejections - 35 USC § 103*

1. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

2. Claims 1-12, and 28-32 are rejected under 35 U.S.C. 103(a) as being unpatentable over Curtis, U.S. Patent No. 6,668,279, further in view of Lo et al., U.S. Patent No. 6,725,105.

Curtis teaches the invention substantially as claimed including methods and apparatus for enabling a web server to transport data to an in-kernel HTTP cache (see abstract).

As to claim 1, Curtis teaches a web-enabled automation control module (ACM) comprising:

an ACM central processing unit (CPU) (col. 6, lines 1-10, Curtis discloses a CPU used in HTTP transport acceleration); and

a web and file transfer system electrically connected to said ACM CPU, said system embedded within said ACM configured to process hypertext transfer protocol (HTTP) requests from a network (col. 2, lines 54-65, Curtis discloses a request and response HTTP data transport; col. 10, lines 59-65, Curtis discloses the CPU being connected to input/output devices).

Curtis fails to teach the limitation further including wherein ACM is one of a programmable logic controller (PLC), a computer numeric control (CNC), and a motion control product.

However, Lo teaches methods and systems that enables email communications between an operator and automated stations, devices, and automation controllers within a production facility or industrial plant (see abstract). Lo teaches the use of ACMs that are PLCs (col. 3, lines 18-49).

It would have been obvious to one of ordinary skill in the art at the time of the invention to modify Curtis in view of Lo to use an ACM that is one of a programmable logic controller (PLC), a computer numeric control (CNC), and a motion control product. One would be motivated to do so because it allows for the automation of a factory.

Regarding claim 2, Curtis teaches an ACM in accordance with claim 1 wherein said web and file transfer system comprises a web server electrically connected to said ACM CPU and the network, said web server configured to process HTTP requests from

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the network (col. 4, lines 39-48, Curtis discloses a web server receiving and processing HTTP requests).

Regarding claim 3, Curtis teaches an ACM in accordance with claim 2 wherein said web server configured to receive HTTP requests from the network (col. 4, lines 39-48).

Regarding claim 4, Curtis teaches an ACM in accordance with claim 3 wherein said web server configured to respond to HTTP requests from the network (col. 1, lines 21-36, col. 4, lines 39-48, Curtis discloses a web server responding to HTTP requests).

Regarding claim 5, Curtis teaches an ACM in accordance with claim 4 wherein said web and file transfer system further comprises a database electrically connected to said web server and comprising at least one web page file, said web server configured to read said web page file from said database (col. 1, lines 21-36, Curtis discloses a web server used to access a web page).

Regarding claim 6, Curtis teaches an ACM in accordance with claim 2 wherein said web server configured to transfer ACM data from said ACM CPU (col. 1, lines 21-36, col. 4, lines 39-48).

Regarding claim 7, Curtis teaches an ACM in accordance with claim 2 wherein said web server configured to transfer ACM data to said ACM CPU (col. 1, lines 21-36, col. 4, lines 39-48).

Regarding claim 8, Curtis teaches an ACM in accordance with claim 5 wherein said web server configured to transfer ACM data from said ACM CPU and embed said ACM data within said at least one web page file based on function tags embedded within said at least one web page file (col. 1, lines 21-36).

Regarding claim 9, Curtis teaches an ACM in accordance with claim 8 wherein said web server configured to send said at least one web page file through said network using HTTP (col. 1, lines 21-36, col. 4, lines 39-48).

Regarding claim 10, Curtis teaches an ACM in accordance with claim 1 wherein said web and file transfer system comprises a network interface configured for connection to the network (col. 1, lines 21-36, col. 4, lines 39-48).

Regarding claim 11, Curtis teaches an ACM in accordance with claim 1 wherein said web and file transfer system further configured to store user defined web pages (col. 1, lines 21-36).

Regarding claim 12, Curtis teaches an ACM in accordance with claim 1 wherein said ACM comprises a backplane interface electrically connected to said ACM and a ACM backplane electrically connected to said backplane interface, said ACM backplane configured for connection with at least one of an input/output (I/O) module and an input module (col. 10, lines 59-65, Curtis discloses the CPU being connected to input/output devices).

Regarding claim 28, Curtis teaches a method for management and control of an automation control module (ACM) including an ACM central processing unit (CPU):

embedding a web and file transfer system within the ACM including electrically connecting the web and file transfer system to the ACM CPU (col. 2, lines 54-65, col. 6, lines 1-10, col. 10, lines 59-65);

electrically connecting the web and file transfer system to a network (col. 4, lines 39-48); and

processing hypertext transfer protocol (HTTP) requests from the network using the web and file transfer system (col. 4, lines 39-48).

Curtis fails to teach the limitation further including wherein ACM is one of a programmable logic controller (PLC), a computer numeric control (CNC), and a motion control product.

However, Lo teaches the use of ACMs that are PLCs (col. 3, lines 18-49).

It would have been obvious to one of ordinary skill in the art at the time of the invention to modify Curtis in view of Lo to use an ACM that is one of a programmable

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logic controller (PLC), a computer numeric control (CNC), and a motion control product. One would be motivated to do so because it allows for the automation of a factory.

Regarding claim 29, Curtis teaches a method in accordance with claim 28 wherein the web and file transfer system includes a web server electronically connected to the ACM CPU and the network, processing HTTP requests from the network using the web and file transfer system comprises processing HTTP requests from the network using the web server (col. 2, lines 54-65, col. 4, lines 39-48, col. 6, lines 1-10).

Regarding claim 30, Curtis teaches a method in accordance with claim 29 wherein processing HTTP requests from the network using the web server comprises: receiving HTTP requests from the network using the web server; and responding to the HTTP requests using the web server (col. 4, lines 39-48).

Regarding claim 31, Curtis teaches a method in accordance with claim 29 wherein the web and file transfer system further includes a database electrically connected to the web server and including at least one web page file, processing HTTP requests from the network using the web server comprising: receiving HTTP requests from the network; reading the at least one web page file from the database; requesting ACM data from the ACM CPU via function tags embedded within the at least one web page file; receiving the ACM data from the ACM CPU; embedding the ACM data within



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the at least one web page file; and sending the at least one web page file through the network (col. 1, lines 21-36, col. 2, lines 54-65, col. 4, lines 39-48, col. 6, lines 1-10).

Regarding claim 32, Curtis teaches a method in accordance with claim 29 wherein processing HTTP requests from the network using the web server comprises transferring ACM data to the ACM CPU using the web server as directed by function tags embedded within at least one web page file and by form data contained in the HTTP request (col. 1, lines 21-36).

3. Claims 13-27 and 33-44 are rejected under 35 U.S.C. 103(a) as being unpatentable over Curtis in view of Pettersen, U.S. Patent No. 6,826,594, further in view of Lo et al., U.S. Patent No. 6,725,105.

Curtis teaches the invention substantially as claimed including methods and apparatus for enabling a web server to transport data to an in-kernel HTTP cache (see abstract).

Regarding claim 13, Curtis teaches an automation control module (ACM) system comprising: an ACM; a network; a web-enabled computer electrically connected to said network; and a web and file transfer subsystem electrically connected to said ACM and said network (col. 2, lines 54-65, col. 6, lines 1-10, col. 10, lines 59-65).

Curtis fails to teach the limitation further including the use of a user-defined web file and where ACM comprises one of a programmable logic controller (PLC), a computer numeric control (CNC), and a motion control product.

However, Pettersen teaches systems and methods for dynamic construction of a web page via electronic links over a global electronic network, such as the Internet (see abstract). Pettersen teaches the use of a user creating their own web page and embedding their generated dynamic code in additional, but different, web pages (col. 10, lines 6-50).

It would have been obvious to one of ordinary skill in the art at the time of the invention to modify Curtis in view of Pettersen to use user-defined web pages. One would be motivated to do so because it allows for dynamic customized web sites.

Curtis and Pettersen fail to teach the limitation further including wherein ACM comprises one of a programmable logic controller (PLC), a computer numeric control (CNC), and a motion control product.

However, Lo teaches the use of ACMs that are PLCs (col. 3, lines 18-49).

It would have been obvious to one of ordinary skill in the art at the time of the invention to modify Curtis and Pettersen in view of Lo to use an ACM comprising one of a programmable logic controller (PLC), a computer numeric control (CNC), and a motion control product. One would be motivated to do so because it allows for the automation of a factory.

Regarding claim 14, Curtis teaches an ACM system in accordance with claim 13 wherein said web and file transfer subsystem comprises a database and a file transfer server electrically connected to said network and said database (col. 2, lines 54-65).

Regarding claim 15, Curtis teaches an ACM system in accordance with claim 14 wherein said database configured to store at least one user-defined web page file, and said file transfer server configured to read and write to said at least one user-defined web page file stored in said database (col. 1, lines 21-36).

Regarding claim 16, Curtis teaches an ACM system in accordance with claim 14 wherein said file transfer server configured to transfer said at least one user-defined web-page file through said network to said computer (col. 1, lines 21-36).

As to claim 17, Pettersen teaches an ACM system in accordance with claim 16 wherein said file transfer server configured to allow a user to perform at least one of create at least one user-defined web-page file and modify at least one user-defined web-page file (col. 10, lines 6-50).

Regarding claim 18, Curtis teaches an ACM system in accordance with claim 13 wherein said at least one user-defined web page file comprises at least one of hypertext markup language (HTML), Javascript, and references to other files (col. 1, lines 21-36).

Regarding claim 19, Curtis teaches an ACM system in accordance with claim 18 wherein said references to other files comprise at least one of at least one image file and at least one Applet (col. 1, lines 21-36).

Regarding claim 20, Curtis teaches an ACM system in accordance with claim 13 wherein said at least one user-defined web page file comprises at least one ACM tag function (col. 1, lines 21-36).

Regarding claim 21, Curtis teaches an ACM system in accordance with claim 14 wherein said file transfer server is a file transfer protocol server (col. 2, lines 54-65).

Regarding claim 22, Curtis teaches an ACM system in accordance with claim 14 wherein said web and file transfer subsystem comprises a network interface electrically connected to said file transfer server and said network (col. 4, lines 39-48).

Regarding claim 23, Curtis teaches an ACM system in accordance with claim 22 wherein said ACM comprises an ACM central processing unit (CPU), said web and file transfer subsystem further comprises a web server electrically connected to said network and said ACM CPU, said ACM, and said database, said web-server configured to process hypertext transfer protocol (HTTP) requests from a network (col. 2, lines 54-65, col. 4, lines 39-48, col. 6, lines 1-10).

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Regarding claim 24, Curtis teaches an ACM system in accordance with claim 13 configured to display at least one user-defined web page file on said computer (col. 1, lines 21-36).

Regarding claim 25, Curtis teaches an ACM system in accordance with claim 13 wherein a user is required to enter a valid user name and user password to access said ACM system (col. 2, lines 54-65).

Regarding claim 26, Curtis teaches an ACM system in accordance with claim 25 wherein said user configures the number of web and file transfer TCP connections using said computer (col. 2, lines 54-65).

Regarding claim 27, Curtis teaches an ACM system in accordance with claim 26 further configured to disable said web and file transfer TCP connections when said user configures zero of said web and file transfer TCP connections (col. 2, lines 54-65).

Regarding claim 33, Pettersen teaches a method in accordance with claim 31 wherein the web and file transfer system further includes a file transfer server electrically connected to the database and the network, said method further comprising: storing at least one user-defined web page in the database; reading the at least one user-defined web page using the file transfer server and the network; and writing to the

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at least one user-defined web page using the file transfer server and the network (col. 10, lines 6-50).

Regarding claim 34, Curtis teaches a method in accordance with claim 31 wherein the database includes at least one user name and at least one user password, the network includes at least one computer electrically connected to the network, said method further comprising requiring a user input a valid user name and valid user password into the computer to access the web and file transfer system (col. 2, lines 54-65).

Regarding claim 35, Curtis teaches a method in accordance with claim 34 further comprising;

allowing a user to configure the number of web and file transfer TCP connections using the computer; and

disabling the web and file transfer TCP connections when the user configures zero of the web and file transfer TCP connections (col. 2, lines 54-65).

Regarding claim 36, Curtis teaches a method for management and control of an automation control module (ACM) using an ACM system, the ACM system including an ACM, a network, and a web-enabled computer electrically connected to the ACM, said method comprising:

embedding a web and file transfer subsystem within the ACM including electrically connecting the web and file transfer subsystem to the ACM and the network (col. 2, lines 54-65, col. 6, lines 1-10, col. 10, lines 59-65);

storing at least web page file (col. 2, lines 54-65, col. 6, lines 1-10); and

Curtis fails to teach the limitation further including the use of a user-defined web page and wherein ACM is one of a programmable logic controller (PLC), a computer numeric control (CNC), and a motion control product.

However, Pettersen teaches the use of a user creating their own web page and embedding their generated dynamic code in additional, but different, web pages (col. 10, lines 6-50).

It would have been obvious to one of ordinary skill in the art at the time of the invention to modify Curtis in view of Pettersen to use user-defined web pages. One would be motivated to do so because it allows for dynamic customized web sites.

Curtis and Pettersen fail to teach the limitation further including wherein ACM is one of a programmable logic controller (PLC), a computer numeric control (CNC), and a motion control product.

However, Lo teaches the use of ACMs that are PLCs (col. 3, lines 18-49).

It would have been obvious to one of ordinary skill in the art at the time of the invention to modify Curtis and Pettersen in view of Lo to use an ACM comprising one of a programmable logic controller (PLC), a computer numeric control (CNC), and a motion control product. One would be motivated to do so because it allows for the automation of a factory.

Regarding claim 37, Pettersen teaches a method in accordance with claim 36 wherein the web and file transfer subsystem includes a database and a file transfer server electrically connected to the network and the database, storing at least one user-defined web page file comprises storing the at least one user-defined web page file in the database (col. 10, lines 6-50).

Regarding claim 38, Pettersen teaches a method in accordance with claim 37 further comprising: reading the at least one user-defined web page file stored in the database using the file transfer server; and writing to the at least one user-defined web page file stored in the database using the file transfer server (col. 10, lines 6-50).

Regarding claim 39, Pettersen teaches a method in accordance with claim 38 wherein reading the at least one user-defined web page file stored in the database using the file transfer server further comprising: transferring the at least one user-defined web page file to the computer; and displaying the at least one user-defined web page file on the computer using the file transfer server (col. 10, lines 6-50).

Regarding claim 40, Pettersen teaches a method in accordance with claim 38 wherein writing to the at least one user-defined web page file stored in the database using the file transfer server comprises allowing a user to modify the at least one user-



defined web page file using the computer and the file transfer server (col. 10, lines 6-50).

Regarding claim 41, Pettersen teaches a method in accordance with claim 37 further comprising allowing a user to create a user-defined web page file using the computer and the file transfer server (col. 10, lines 6-50).

Regarding claim 42, Curtis teaches a method in accordance with claim 37 wherein the ACM includes an ACM central processing unit (CPU) and the web and file transfer subsystem further includes a web server electrically connected to the network and the ACM CPU, said method further comprising: processing hypertext transfer protocol (HTTP) requests from the computer using the web server (col. 4, lines 39-48).

Regarding claim 43, Curtis teaches a method in accordance with claim 37 wherein the database includes at least one user name and at least one user password, said method further comprising requiring a user input a valid user name and valid user password into the computer to access the web and file transfer subsystem (col. 2, lines 54-65).

Regarding claim 44, Curtis teaches a method in accordance with claim 43 further comprising; allowing a user to configure the number of web and file transfer TCP connections using the computer; and disabling the web and file transfer TCP

connections when the user configures zero of the web and file transfer TCP connections (col. 2, lines 54-65).

### ***Response to Arguments***

4. Applicant's arguments with respect to claims 1-44 have been considered but are moot in view of the new ground(s) of rejection.

5. Applicant's arguments filed August 7, 2006, regarding claims 13-27 and 33-44, have been fully considered but they are not persuasive.

6. In response to applicant's argument that there is no suggestion to combine the references, the examiner recognizes that obviousness can only be established by combining or modifying the teachings of the prior art to produce the claimed invention where there is some teaching, suggestion, or motivation to do so found either in the references themselves or in the knowledge generally available to one of ordinary skill in the art. See *In re Fine*, 837 F.2d 1071, 5 USPQ2d 1596 (Fed. Cir. 1988) and *In re Jones*, 958 F.2d 347, 21 USPQ2d 1941 (Fed. Cir. 1992). In this case, the knowledge is generally available to one of ordinary skill in the art.

7. In response to applicant's argument that the examiner's conclusion of obviousness is based upon improper hindsight reasoning, it must be recognized that any judgment on obviousness is in a sense necessarily a reconstruction based upon hindsight reasoning. But so long as it takes into account only knowledge which was within the level of ordinary skill at the time the claimed invention was made, and does

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not include knowledge gleaned only from the applicant's disclosure, such a reconstruction is proper. See *In re McLaughlin*, 443 F.2d 1392, 170 USPQ 209 (CCPA 1971).

### ***Conclusion***

8. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

U.S. Pat. No. 6,598,083 to Remer et al.

U.S. Pat. No. 6,629,127 to Deen et al.

U.S. Pat. No. 6,684,257 to Camut et al.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Avi Gold whose telephone number is 571-272-4002.

The examiner can normally be reached on M-F 8:00-5:30 (1st Friday Off).

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Ario Etienne can be reached on 571-272-4001. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

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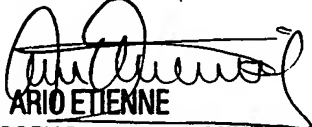
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Avi Gold

Patent Examiner

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AMG

  
ARIO ETIENNE  
SUPERVISORY PATENT EXAMINER  
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